

Applicant : Klausmann et al.
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REMARKS

In reply to the Office Action of June 16, 2005, Applicant submits the following remarks. Claims 1, 3, 6, 10, 16, 20 and 25 have been amended. Support for the amendments to claims 1 and 20 can be found at least on page 6, lines 1-2 and page 9, lines 16-21. Support for claim 33 can be found at least on page 10, lines 13-15 and page 11, lines 4-8. Claims 28-33 have been added. No new matter has been added. Claims 1-12 and 14-33 are now pending after entry of this amendment. Applicant respectfully requests reconsideration in view of the foregoing amendments and these remarks.

Section 103 Rejections

Claims 1-12 and 14-27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the background of the applicant's application ("the applicant's background") in view of U.S. Application No. 2003/0117068 ("Forrest") and further in view of U.S. Application No. 2003/0197197 ("Brown"). The applicant respectfully disagrees.

Claim 1 is directed to a device having a substrate with an active region defined thereon, the active region comprising an active component. Conducting lines are on the substrate to provide electrical access to the device. A protective layer on the substrate prevents shorting of conducting lines.

The applicant's background describes a conventional OLED device having a functional stack formed on a substrate 101 (FIG. 1, page 2, lines 12-14). The functional stack includes organic functional layers 102 between two conductive layers 104 and 106, which serve as electrodes (page 2, lines 14-16). The electrode 104 extends beyond a cap 110 on the substrate and contacts bond pads 108 (FIG. 1). Charge carriers are injected through the electrodes via the bond pads 108 (page 2, lines 20-22). Drying compounds 114 can be included on the cap to react with water (page 3, lines 10-15).

Forrest describes an optoelectronic device 100 having a first protective layer 170 formed on a patterned cathode layer 160 and a light emitting layer 140 (FIG. 2, paragraphs 25 and 28). Together, an anode, the cathode layer 160 and the emitting layer 140 make up an active region

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150. A second protective layer 180 is formed over the first protective layer 170. The first protective layer extends at least to the lateral edges of the OLED device 100, but could also extend down the lateral surfaces of the active region 150 (paragraph 37).

Brown describes an OLED structure 100 having an OLED region 116 situated on a substrate 110, with a barrier layer 120 over the OLED region 116 (FIG. 2, paragraph 49). An adhesive layer 130 attaches the barrier layer 120 to the OLED region 116 and substrate 110. The adhesive layer 130 can include particulate materials that can damage the OLED region 116 (paragraph 66). To prevent such damage, a protective layer 126 can be provided between the adhesive layer 130 and the OLED region 116.

While the applicant's background describes a device with a functional stack with an electrode 104 that extends beyond and bond pads 108, the applicant's background does not suggest or disclose that the device includes a protective layer that prevents shorting of conductive lines that provide electrical access to the device. Forrest describes a device having an active region 150 with a protection layer 170 over the cathode layer 160 of the active region 150. Forrest does not describe how the device is electrically accessed, that is, Forrest does not describe conducting lines. Further, even if the protection layer of Forrest's device were combined with the device described by the applicant's background, there is no indication how the protection layer would be arranged so that the protection layer would protect shorting of conducting lines. Brown describes an OLED region 116 with a protective layer 126 thereon. However, Brown does not describe how the device is electrically accessed and does not describe conducting lines. Thus, Brown does not suggest or disclose a protective layer on the substrate that would prevent shorting of the conducting lines. For at least these reasons, the applicant submits that no *prima facie* case of obviousness has been made with respect to claim 1. Claims 2-12, 14-19 and 27 depend from claim 1 and are similarly not obvious over the combination of the applicant's background, Forrest and Brown.

Claim 20 is directed to an organic electroluminescent device having conducting lines in the bonding region on a substrate to provide electrical access to the OLED cells and a protective layer located in the bonding region to prevent shorting of the conducting lines.

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For similar reasons to those provided with respect to claim 1, the applicant submits that no *prima facie* case of obviousness has been made with respect to claim 20. Claims 21-26 depend from claim 20 and are similarly not obvious over the combination of the applicant's background, Forrest and Brown.

New Claims

Claims 28-33 are new. No new matter has been added. Claim 28 depends from claim 20. Claims 29-32 depend from claim 1. Claim 33 is a new independent claim directed to a device including a getter layer consisting essentially of an alkaline earth metal, aluminum, tantalum or zirconium, the getter layer is disposed directly on the at least one active component. The applicant's background suggests using drying compounds, such as barium oxide, calcium oxide or sodium oxide to absorb moisture (page 3, lines 10-13). The drying compound is on the cap within the encapsulation, separated from the active component by a gap (FIG. 1). Forrest describes applying a desiccant layer between the first protective layer, but does not describe the desiccant to be used. Further Forrest does not provide the desiccant directly on the active region 150. Brown describes a getter material 119 within the OLED structure 110, so that a gap is between the getter 118 and the OLED region 116 (FIG. 4, paragraph 71). The getter material can be within the adhesive material (paragraph 73), however neither of these implementations provide a getter layer consisting essentially of an alkaline earth metal, aluminum, tantalum or zirconium, where the getter layer is disposed directly on the an active component. For at least these reasons, the applicants submit that the new claims are allowable over the applicant's background, Forrest and Brown.

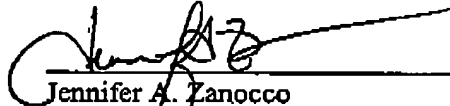
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Please apply excess claim fees in the amount of \$300 and the two-month extension of time fee in the amount of \$450 and any other required charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: November 16, 2005



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